

Claims

1. Combustion chamber with a closed cooling system for a turbine with an inner wall and an outer wall (1) bounding the combustion area, whereby there is an intermediate space between the inner wall and the outer wall (1) through which a cooling fluid can flow, with a cooling fluid feed system opening out into the intermediate space and a cooling fluid discharge for discharging the cooling fluid from the intermediate space, whereby the cooling fluid discharge system comprises channel-type drainage structures (8; 21, 22) running essentially along the axial orientation of the combustion chamber, which are interrupted by inlet structures (4; 6) for the cooling fluid feed system arranged between the drainage structures (8; 21, 22).

2. Combustion chamber according to Claim 1, wherein the outer wall (1) is configured as a double-layer hollow tile and the drainage structures (8) inside the hollow tile are configured between walls of feed tubes (4) arranged in rows one behind the other in the axial direction of the combustion chamber and projecting through the hollow tile to feed in the cooling fluid, whereby the feed tubes (4) have an opening cross-section (5) that is longitudinally extended in the axial direction of the combustion chamber at least in the outer layer (2) of the hollow tile.

3. Combustion chamber according to Claim 2, wherein the narrow sides of the feed tubes (4) in the rows arranged in the axial direction of the combustion chamber are at a smaller distance from each other at least in the outer layer (2) of the hollow tile than the distance between the openings in adjacent rows.

4. Combustion chamber according to one of Claims 2 or 3, wherein the feed tubes (4) in the outer layer (2) of the hollow tile have an opening cross-section (5) with a longitudinally extended form

and in the inner layer (3) of the hollow tile they have a circular opening cross-section (6).

5. Combustion chamber according to one of Claims 2 to 4,
5 wherein the outer layer (2) of the hollow tile has a sealing plate (11) that is attached, preferably screwed on, in a detachable manner, which seals an opening (10), through which a section of the inner layer that is attached, preferably screwed on, in a detachable manner is accessible.

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6. Combustion chamber according to Claim 1, wherein the drainage structures are formed by drainage channels (21, 22) formed on the outer wall (1), running in the axial direction of the combustion chamber, between which the inlet structures (6) are each arranged.

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7. Combustion chamber according to Claim 6, wherein circular drainage openings (7) formed in the outer wall (1) open out into the drainage channels (21, 22).

20 8. Combustion chamber according to one of Claims 6 or 7, wherein the drainage channels (21, 22) on the outer wall (1) are formed by covers (22) placed on ribs (21) running in the axial direction of the combustion chamber and configured on the outer wall (1).

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9. Combustion chamber according to Claim 8, wherein the ribs (21) have at their base (24) structures for facilitating the transition from circular openings (6) to a linear channel.

30 10. Combustion chamber according to one of Claims 8 or 9, wherein the outer wall (1) is formed as a single-layer cast piece and the covers (22) are welded onto the ribs (21).